AMENDMENTS

<u>Listing of Claims</u>:

1-49. (cancelled)

50.   (currently amended) A method of analyzing an analyte collected on a membrane comprising:

    passing a fluid sample across a membrane <u>that rest on a membrane support configured to maintain the membrane in a substantially planar orientation,</u> wherein the fluid sample comprises an analyte that is at least partially retained by the membrane;

    adding a visualization agent to material collected on the membrane when the fluid sample is passed across the membrane;

    collecting an image of the collected material using white light, at a first wavelength of light, a second wavelength of light, and a third wavelength of light, wherein the analyte comprises a color corresponding to the first wavelength of light;

    forming a first mask corresponding to an image of the collected material at the second wavelength of light;

    forming a second mask corresponding to an image of the collected material at the third wavelength of light;<u> and</u>

    subtracting the first mask and the second mask from the image of the collected material in white light.

51.   (original) The method of claim 50, wherein the wavelengths of light are selected from the group consisting of red, blue and green.

52.   (original) The method of claim 50, wherein the collecting the image data and forming the masks is performed by a computer.

53.   (original) The method of claim 50, further comprising determining the amount of analyte present on the membrane by analysis of the image resulting from subtracting the first mask and the second mask from the image of the collected material in white light.

54. (previously presented) The method of claim 50, wherein the images are collected using a digital detection device.

55-68. (cancelled)

69. (currently amended) A method of sensing an analyte in a fluid comprising:

passing the fluid across a porous membrane configured to capture the analyte on the porous membrane <u>that rest on a membrane support configured to maintain the membrane in a substantially planar orientation</u>;

applying a visualization agent to the particles on the porous membrane;

detecting an image of matter captured on the porous membrane with a detector at a plurality of wavelengths of light<u>; and</u>

detecting an image of matter captured on the porous membrane at a specific wavelength of light, wherein the specific wavelength of light represents light that is not indicative of the presence of the analyte.

70-80. (cancelled)

81. (previously presented) The method of claim 50, wherein the membrane is coupled to a body.

82. (canceled)

83. (previously presented) The method of claim 50, further comprising:

passing a background fluid across the porous membrane;

detecting an image of matter captured on the porous membrane after passing the background fluid through the porous membrane; and

cleaning the surface of the porous membrane;

comparing the image of matter captured on the porous membrane after passing the fluid containing one or more analytes through the membrane to the image of matter captured on the porous membrane after passing the background fluid through the porous membrane.

84. (previously presented) The method of claim 50, wherein the images are collected using a detector, and wherein a programmable controller is coupled to the detector.

85. (previously presented) The method of claim 50, further comprising applying a stain to the fluid.

86. (previously presented) The method of claim 50, wherein the visualization agent comprises a stain, wherein the stain is configured to emit light only in a specified portion of the visible spectrum.

87. (previously presented) The method of claim 50, wherein the first mask is a binary mask.

88. (previously presented) The method of claim 50, wherein the second mask is a binary mask.

89. (previously presented) The method of claim 50, wherein the visualization agent comprises a stain, and wherein further the stain is configured to emit light only in a green portion of the visible spectrum, and wherein the second wavelength of light comprises a blue portion of the visible spectrum, and wherein the third wavelength of light comprises a red portion of the visible spectrum, and wherein subtracting the first mask and the second mask from the image of the collected material in white light comprises isolating the matter on the membrane that only emits light in the green portion of the visible spectrum.

90. (previously presented) The method of claim 69, wherein the images are collected using a CCD detector.

91. (previously presented) The method of claim 69, wherein the images are collected using a CCD detector coupled to a microscope.

92. (previously presented) The method of claim 69, wherein the images are collected using a detector, and wherein a programmable controller is coupled to the detector.

93. (previously presented) The method of claim 69, wherein the visualization agent comprises a stain, wherein the stain is configured to emit light only in a specified portion of the visible spectrum.

94.   (previously presented) The method of claim 50, wherein the wavelengths of light are selected from a plurality of visible light wavelengths.